

METHOD AND APPARATUS FOR PROVIDING A SPIN VALVE TRANSISTOR WITH DIFFERENTIAL DETECTION

ABSTRACT

5 A method and apparatus for providing a spin valve transistor with differential
detection is disclosed. The present invention provides a structure including spin valves
that are (100)-oriented on a (100) substrate to take advantages of the high MR sensitivity
of spin valve transistor read heads without the need for shields. This allows the distance
between the free layers in the differential sensor to be minimized thereby allowing an
increase in the areal density.

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